OUR LAND AND WATER

LAND IN PRAIRIE COUNTY

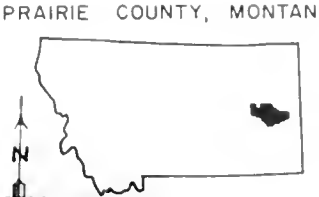
Brown and Chestnut soils of gently rolling to steep rough broken, dissected plains area. Geologic materials are Tertiary and Cretaceous age with alluvial materials in the stream valleys. Range and dryland farming area.

Brown soils on gravel capped benches within the bedrock plains. Textures range from sandy to medium with medium textures on about half of the area. Soils on the central portion of the benches are deep with shallow gravelly soils along the bench edges. Dryland farming and range.

Alluvial soils of the valleys within the bedrock plains. Deep medium textured and moderately heavy soils predominate, but both heavy and sandy soils occur and there are some shallow soils. Irrigated cropland and range.

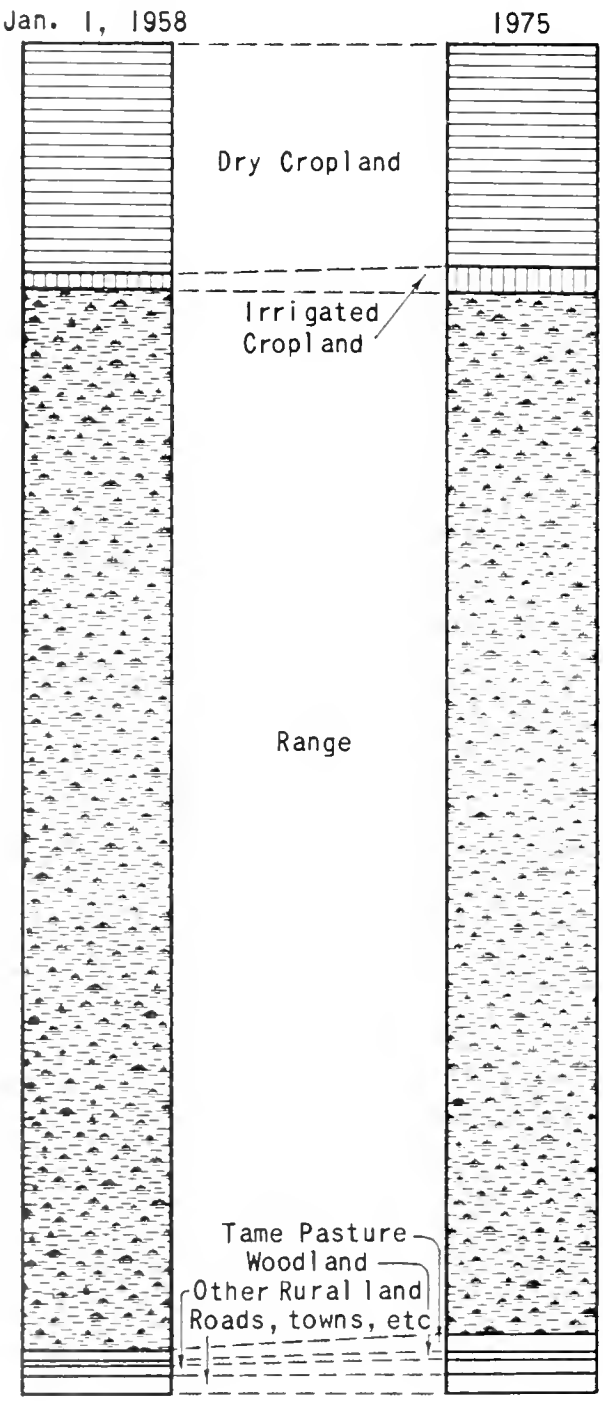
Contributions from the Prairie Co. Grazing District made this publication possible.

PRAIRIE COUNTY, MONTANA



In Prairie County there are - - - - - - - - - -	1,105,280 acres
The Area of Federal Land is - - - - - - - - - -	451,054 acres
Towns, roads, water, etc. amount to - - - - -	9,737 acres
This leaves a conservation responsibility on-	644,489 acres

LAND USE TODAY AND EXPECTED BY 1975



Dry cropland will decrease slightly. Marginal cropland will be seeded to tame pasture. This will be offset somewhat by present rangeland going into cropland use.

Irrigated cropland will increase due to development of new irrigation systems.

Rangeland will decrease slightly. The loss will be to developing land for irrigation and dry cropland.

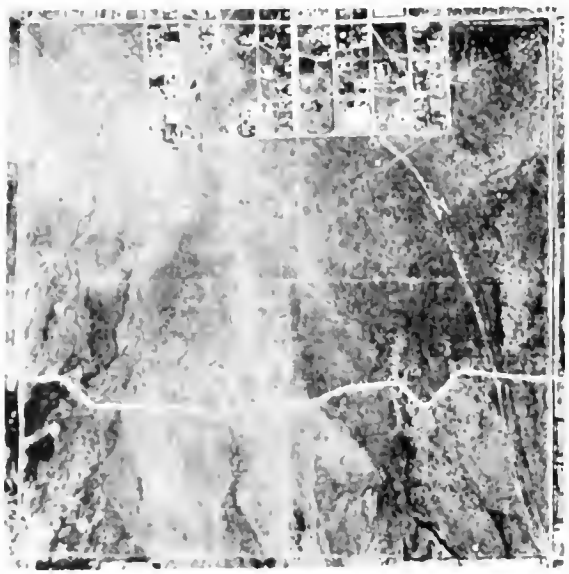
Tame pasture will increase by two-thirds mostly from reseeding of dry cropland.

Woodland areas will remain nearly the same. Any increase would be due to farm and field shelterbelts.

Nonagricultural use of rural land will increase. Irrigation and drainage systems will account for most of the increase.

Land taken out of farms for highways and other public uses will increase.

TREND IN LAND USE



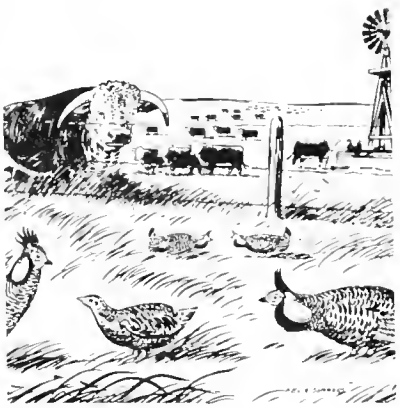
EXPLANATION: Irrigation development is increasing. This increase results in more intensive use of land, creating more conservation problems. The photo on the left shows the area immediately south of Terry in 1942. The photo on the right shows the same area in 1958.

Why The Inventory: To assure the wise use of our basic resources we need facts about physical problems of conservation, their magnitude and relative urgency. This inventory contains these facts. It will be modified and kept current with advances in technology and increased knowledge.

How It Was Made: The inventory was initiated in 1957, as part of a national inventory authorized by the Secretary of Agriculture. It is based upon soil surveys of 160 acre samples drawn at random. The soil survey samples were expanded to represent actual conditions in the county. The county committee used this information along with their knowledge of the county to develop estimates of expected changes by 1975.

Who Did It: The inventory and this leaflet were prepared by the Prairie County Conservation Needs Committee. The committee consisted of representatives of the County Extension Service, Agricultural Conservation Program Service, Prairie County Cooperative State Grazing District, County Assessors Office, Buffalo Rapids Project, Bureau of Land Management, County Commissioners, and the Soil Conservation Service, which acted as chairman.

THE PROBLEMS AND NEEDED TREATMENT



DRY CROPLAND - - - - - - - - - - - - - - - - - 107,001 acres

69% or 73,298 acres of Dry Cropland are adequately treated

31% needs treatment -

a.	Erosion is the dominant problem on - (Strip cropping, stubble mulch, grassed waterways, etc.)	29,515 acres
b	Unfavorable soil is dominant problem on - - - - - - - - - - - - (Crop rotation, fertilizer, narrow strips)	4,188 acres

IRRIGATED CROPLAND - - - - - - - - - - - - - 12,183 acres

50% or 6,093 acres are adequately treated

50% needs treatment

a.	Erosion is dominant problem - - - -	3,406 acres
b	Excess water is dominant problem - -	500 acres
c	Unfavorable soil is dominant problem	2,129 acres
d	Climate conditions dominant problem-	55 acres

GRASSLAND (Range, Tame Pasture, Irrigated Native) - - - - - - - - - - - - - - - - - 517,884 acres

74% or 384,404 acres are adequately treated

26% needs treatment -

a.	Needs reseeding - - - - - - - - - -	4,898 acres
b	Improvement (Deferred grazing primarily) - - - - - - - - - - - - -	51,700 acres
c	Over-grazed (Proper stocking, and better distribution) - - - - - - - -	76,682 acres
d	Needs stockwater - - - - - - - - -	76,360 acres
e	Protection from fire - - - - - - - -	155,036 acres
f	Severe erosion problem - - - - - - -	700 acres
g	Rodent control - - - - - - - - - -	125 acres
h	Encroachment of plants - - - - - - -	500 acres
i	Insects and disease - - - - - - - -	2,200 acres
j	Needs water conservation - - - - - -	800 acres
k	Excess water - - - - - - - - - - - -	0 acres

WOODLAND - - - - - - - - - - - - - - - - - - - 2,025 acres

a	Protection from fire - - - - - - - -	504 acres
b	Insect and disease control - - - - -	5 acres
c	Protection from animals - - - - - -	15 acres
d	Establishment of shelterbelts - - -	25 acres
e	Establishment of field windbreaks -	2 miles

LAND USE CHANGE BY CAPABILITIES

Land Capability Class	Land Use 1958	LAND USE CHANGE BY 1975						
	IRRIGATED CROPLAND	CROPLAND		GRASSLAND		WOODLAND	OTHER	OUT OF AGRI. USE
		IRRIGATED	DRY	PASTURE	RANGE			
I	1128	1128						
II	2176	2101					25	50
III	1381	1331						50
IV	1085	1035						50
VI	2783	2783						
VII	171	171						
	Dry Cropland							
II	2207		2157			10		40
III	84704	523	83416	475		15	15	260
IV	9015		8165	850				
V	2204		2204					
VI	11020	45	8430	2545				
VII	29		29					
	* RANGE							* Includes Irrigated Native
II	13785	210			13575			
III	83545	2206	2600	50	78529		10	240
IV	51634	150			51529		15	30
VI	*186700	500			187500			230
VII	175776				176666			400
VIII	1099						1099	
	Tame Pasture							
II	397			397				
III	2362			2340	22			
IV	110			110				
VI	3296			3296				
Woodland								
VI	1800					800		
VII	200					200		
	Other							
II	16						16	
III	5122						5122	
IV	16						16	
VI	658						658	
VII	70						70	
TOTAL	644489	12183	107001	10063	**507821	2025	7046	1350

EXPLANATION: Quite a lot of the poorer dry cropland will be seeded to grass. Some of the better rangeland will be cultivated for use as either irrigated or dry cropland. Some of nearly all land classes will go into nonagricultural use.

** 3000 acres BLM (Expected to come into inventory by 1975)

LAND CAPABILITY DEFINITION

SUITABLE FOR CULTIVATION				NOT SUITABLE FOR CULTIVATION			
CLASS I	CLASS II	CLASS III	CLASS IV	CLASS V*	CLASS VI*	CLASS VII	CLASS VIII
Very Good Land No Limitations	Good Land Minor Limitations	Moderately Good Land with Major Limitations	Fairly Good Land Occasional Cultivation with severe Limitations	Suitable for Pasture, Range and Woodland With no Limitations	Suitable for Pasture, Range and Woodland With minor Limitations	Suitable for Pasture, Range and Woodland With major Limitations	Suitable for Wildlife and Watershed

Increasing Permanent Limitations →

*Some soils in Classes V and VI can be used for crops with unusually intensive management.

WATERSHED INVENTORY

What Was Done: Disregarding county or other political divisions the natural drainages were divided into units of 250,000 acres or less. Each subdivision was studied by the committee to determine treatment needs and possible developments which might be met through the small watershed program by other kinds of local group action.

What It Revealed: The watershed areas on the north side of the Yellowstone are mainly rangeland. The area south of the Yellowstone is rangeland and dryland farming area. A few watersheds along the Buffalo Rapids Project need treatment for erosion and flood control. Early project action is not likely. Small group action is anticipated for improving irrigation facilities.

MINUTES OF CONSERVATION NEEDS COMMITTEE

PRAIRIE COUNTY
Terry, Montana

The meeting of the Conservation Needs Committee was held at the SCS Office on February 20, 1963.

The meeting began at 10:15 A.M. and was for the purpose of estimating the practices and amounts of each needed to provide the treatment on the various land uses. Estimates were made as of December 30, 1962.

Present at the meeting were Don G. Hubber, SCS; Emmett Gardner, Manager, Buffalo Rapids Irrigation Project; Phil Wilson, County Agent; and Phil Murphy, ASC County Committee Chairman.

Attached are the estimates made by the Committee.

The meeting adjourned at 4:30 P.M.

Don G. Hubber

SUPPLEMENT TO THE
PRAIRIE COUNTY CONSERVATION NEEDS INVENTORY

The following is an estimate made by the committee of the practices and amounts of each needed to provide the treatment needed on the various land uses. Estimates were made as of December 30, 1962.

LAND USE - DRY CROPLAND

Practice	Unit	Amount
Conservation Cropping System	Acres	4,188
Diversion Ditches	Miles	150
Diversion Dams	No.	750
Grass Waterways	Acres	300
Contour Stripcropping	Acres	8,000
Stripcropping Across Slope	Acres	7,000
Wind Stripcropping	Acres	2,500
Stubble Mulching	Acres	33,000

LAND USE - IRRIGATED CROPLAND

Drain Ditches (Deep Drains Sub-Surface)	Miles	20
Irrigation Canals or Laterals	Miles	40
Field Ditches	Miles	70
Land Leveling	Acres	3,500
Irrigation Storage Reservoirs	No.	30
Irrigation Water Management	Acres	11,000
Irrigation System (Surface & Sub-Surface)	No.	40
Weed Control	Acres	1,900

Practice	Unit	Amount
LAND USE - DRY PASTURE & HAYLAND		
Hayland Planting	Acres	4,000
Pasture Planting	Acres	9,000
Proper Pasture Use	Acres	9,000
LAND USE - IRRIGATED PASTURE & HAYLAND		
Pasture Planting	Acres	150
Pasture Proper Use	Acres	150
Rotation Grazing	Acres	150
Hayland Planting	Acres	2,000
LAND USE - WILDLIFE		
Fish Pond Stocking	No.	65
Wildlife Habitat Development	Acres	75
LAND USE - WOODLAND		
Farmstead & Feedlot Windbreaks	Acres	100
Field Windbreaks	Acres	500
LAND USE - RANGE		
Grade Stabilization Structures	No.	125
Brush & Weed Control	Acres	250
Farm Ponds	No.	250
Cross Fencing	Miles	200
Pipelines for Livestock Water	Miles	5
Deferred Grazing	Acres	100,000

Practice	Unit	Amount
	LAND USE - RANGE	
Range Proper Use	Acres	125,000
Range Seeding	Acres	4,898
Spring Development	No.	65
Waterspreading	Acres	6,000
Wells	No.	400